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rable butterfly *(Vanessa Atalanta)*; but when they are placed in a group, the cement is sometimes placed over the whole, as in the instance of the white satin moth *(Leucoma Salicis*, STEPHENS.) This cement is evidently intended by nature (who seldom accommodates her plans to our theories) to prevent the eggs from being carried from the place selected by the mother insect for their deposition. Those eggs, therefore, which are placed on the outside of substances, have this provision for their secure attachment to the locality chosen by the instinct of the mother. But, on the contrary, the principle does not always hold in the case of those deposited in nests and excavations, and particularly as to those of ants and termites. The working ants, indeed, carry the eggs from the top to the bottom of their galleries, according as the weather is favourable or unfavourable for hatching. The labourers of the white ants *(Termites)*, again, attend their queen with the utmost care when she is laying; for, as she cannot then move about, they are under the necessity of carrying off the eggs, as they are laid, to the nurseries. The extraordinary labour which this requires in the community may be understood, when, according to Smeathman, she lays 60 eggs in a minute, which will amount to 86,400 in a day, and 31,536,000 in a year. The exceptions now mentioned, however, do not in the least invalidate our general position.

"Another no less remarkable circumstance is the great weight, or specific gravity of the eggs of insects. From numerous experiments, we may venture to say, that those of all the species we have tried sink rapidly in water the moment they are thrown into it, from the egg of the drinker moth *(Odonistis Polatoria*, GERMAR,) which is nearly as large as a hemp seed, to that of the rose-plant louse *(Aphis rosæ)*, which is so small as to be barely visible to the naked eye. Some eggs of the gypsey moth *(Hypogymna dispar*, STEPHENS), indeed, floated in water, because they were covered with down. It is well known that the diffusion of many of the seeds of plants is accomplished by the winged down with which they are clothed; but the down upon the eggs of insects does not conduce to this end. Whether insect eggs be naked or covered with down, they are invariably, as far as their history has been investigated, deposited close to, or upon, substances capable of affording food to the young when hatched. In making experiments upon the specific gravity of eggs, it should be remembered that no infertile, or unimpregnated egg will sink; for having some hundreds of these, laid by different species of insects, in our cabinet, we found, upon trial, that they uniformly floated, while those which we knew to be impregnated, as uniformly sunk. A female, for example, of the rose-leaf roller (*Lozotonia Rosana*, STEPHENS) was reared by us, in solitude, under an inverted wine-glass, upon the side of which we glued a patch of eggs, of course unimpregnated; these, upon trial, all floated in water. But eggs of the same species, taken from the outside of a pane of glass close to a rose-tree, all sunk in water; and it is to be fairly presumed, as the parent of the latter was in a state of freedom, that these were impregnated. We found the same distinction to hold in the eggs of the drinker moth, the gypsey moth, and numerous other insects."

A most curious subject of inquiry in entomology, is the final cause of the infinitely varied colours and forms of insect eggs. On the latter, the author states some very interesting facts. "We are accustomed to consider the form of eggs so nearly regular, that the epithet, 'egg-shaped,' is frequently applied to other things, and is well understood; but the eggs of insects, though most commonly round, are seldom, like those of birds, smaller at one end than at another, while they often exhibit forms never seen in the eggs of birds, such as cylindric, flat, depressed, compressed, prismatic, angular, square, boat-shaped, &c. These varieties of form are justly referred by Kirby and Spence to the 'manifold wisdom' of the Creator; but we have some hesitation in admitting their limitation of this to his 'will to vary forms, and so to glorify his wisdom and power, independently of other considerations,' and think it would be more truly philosophic to confess our ignorance, when we cannot explain what is above our comprehension. Paley, indeed, says such facts 'might induce us to believe that variety itself, distinct from every other consideration, was a motive in the mind of the Creator, or with the agents of his will;' but he immediately adds, 'to this great variety in organized life the Deity has given, or perhaps there arises out of it, a corresponding variety of animal appetites; and did all animals covet the same element, retreat, or food, it is evident how much fewer could be supplied and accommodated, than what at present live conveniently together, and find a plentiful subsistence.' The latter remark, we think, completely destroys the former; and it will lead us to what appears to be the true cause of the varied forms of the eggs of insects. The cause of the eggs of birds being nearly the same in shape, arises, we should say, from the similar forms of the animals themselves, while insects, being much more varied in shape, require corresponding varieties in the forms of their eggs. The ostrich, the eagle, and the wren, for example, differ much more in size than in their general form; but the ear-wig, the garden-spider, butterflies, beetles, and grasshoppers, differ much more in form than in size, and consequently require eggs of varying forms to contain their progeny. We confess, however, that we cannot always trace the mathematical cause of these diversities of form in the eggs of insects; for though there prevails a general resemblance in those families and groups the most nearly allied, yet in others, even the species of the same genus exhibit differences which cannot thus be accounted for. In two species of vanessa, for instance, the small and the giant tortoise-shell butterflies, which differ in little but size, the egg of the small is cylindric, with eight prominent ribs, while that of the great is shaped like a Florence flask, and quite smooth and uniform. The ribbing of the eggs of the small tortoise-shell butterfly, which is also found on most of the species, leads us to remark that insect eggs are frequently sculptured in a very beautiful manner, far outrivalling in elegance of design and delicacy of workmanship the engravings which we sometimes see on eggs brought from India and China."

The chapter on the voracity of caterpillars, grubs, and maggots, contains a great variety of interesting particulars, from which we select the following:—"Insects, in the early stage of their existence, may be compared to an Indian hunter, who issues from his hut, as they do from the egg, with a keen appetite. As soon as he is successful in finding game, he gorges himself till he can eat no more, and then laying him down to sleep, only bestirs himself again to go through a similar process of gorging and sleeping; just so the larvæ of insects doze away a day or more, when casting their skins, and then make up for their long fast by eating with scarcely a pause. Redi ascertained by experiment that the maggot of the common blow-fly *(musca carnaria)* becomes from 140 to 200 times heavier within twenty-four hours; and the cultivators of silk-worms know the exact quantities of leaves which their broods devour. 'The result,' says Count Dandolo, 'of the most exact calculations is, that the quantity of leaves drawn from the tree employed for each ounce of eggs, amounts to 1609 lbs. 8 oz., divided in the following manner:—

	Sorted leaves.		*Refuse.*	
	lbs.	oz.	lbs.	oz.
First age	6	0	1	8
Second age	18	0	3	0
Third age	60	0	9	0
Fourth age	180	0	27	0
Fifth age	1098	0	102	0
Per oz. of eggs of sorted leaves	1362	0	142	8
Refuse	142	8		
Loss by evaporation, &c....	105	0		
lbs.	1609	8		

Making, however, certain deductions, we must conclude that, at least, the amount of leaves eaten by the caterpillars produced from one ounce of eggs, is upwards of 1200 lbs.! A single silk-worm consumes, within thirty days, about 60,000 times its primitive weight!"

The wood engravings illustrative of this excellent little book are, if possible, even better than those which adorn the corresponding volumes. We have curtailed ourselves in our intended extracts, as the work itself, we know, will presently be in every body's hands, though ours is the only copy that has yet reached Ireland.

Lithotrity, its applicability as an operation for the Cure of Stone; illustrated by a series of Cases. By W. B. Costello.

[UNPUBLISHED.]

THIS interesting and important improvement in Surgery is now beginning to attract universal attention. At a Meeting of the Royal Society on Thursday Evening the 20th inst. a paper was to have been read upon the subject, but was postponed until the evening of the 27th, in consequence of the length of some other proceedings, which necessarily took precedence of it. We have been favoured with a previous perusal of this paper, and are happy to be able thus to furnish our readers with the earliest intelligence on so important a subject. Mr. Costello is an Englishman, and has, till lately, been the colleague of the discoverer of this method, Dr. Civiale of Paris, conjointly with whom he has relieved a great number of persons, suffering from this malady. In France Lithotrity has already taken its rank amongst surgical operations; and it is this gentleman's object "to endeavour to render this method of operation popular in England." Since his arrival in London, last July, several very remarkable cures have been effected by him.

Mr. Costello's paper begins by stating the importance of enquiring whether the benefits Lithotrity pretends to offer, be not more specious than real; and for the purpose of guiding this enquiry, he submits to the Royal Society a series of cases illustrating its advantages. This paper embraces other objects. The importance of the new method of curing Stone having excited the attention of the public, a clear statement of fact is rendered particularly necessary: first, in order to set bounds to the enthusiasm of those who expect more from it than this method can accomplish—secondly, to enable practitioners in general to discriminate those cases, which are within the scope of this operation—and lastly, to impress on the minds of the sufferers themselves the necessity of applying, in time, the cure of this cruel disease, by the new method; being always certain, and attended with very little pain, in its early stages.

With this view, Mr. Costello establishes four classes, whereby the different gradations of difficulty which its application may encounter, are exhibited. In the first class, he places the simple cases in which the stone is of recent formation, and the general health unimpaired; in the second, cases in which the malady has existed for some time, and has produced derangement in the general health, and commencing organic alteration; in the third class, the organs are more or less profoundly diseased; and in the fourth class, the calculous concretions are of large volume—the urinary apparatus disordered, and the general health destroyed. This last class of cases can obtain no relief from the lithotritic operation; the three former classes admit of its application. In the first class, that of the simple cases, Mr. Costello gives the history of four cases of the application of this method. From the scientific nature of the details, it cannot of course be expected that we shall follow him closely in his narration. It is sufficient to say, that in this class the operation is fully efficacious; and not only is it exempt from danger, but almost from pain also. In one of these cases, a gentleman who had been suffering for six months, is cured in three minutes; in another, the patient has been afflicted for twelve months, and is cured in five minutes; in a third, the result is equally fortunate; and the fourth, who required two applications of the instrument for his cure, thinks so lightly of the matter, that at the second sitting he tells the operator, "I have suffered severely for the last year, and I dreaded the cutting operation of all things; but I shall now take no more trouble about regimen—for if my desease return, it is only the business of five minutes to be rid of it."

Mr. Costello closes the detail of the simple cases, by the following reflections:—"These cases exhibit the operation of lithotrity in the most favourable point of view, and are well calculated to shew the safety and efficacy of this method. It is obvious, the earlier this operation is resorted to, the more certain and easy will be the cure. When time is not given to bring on the general sympathy of the constitution with the local irritation, and local irritation has not gone the length of producing organic alterations in the urinary apparatus, then is the application of lithotrity certain in its effect, and attended with little or no pain, or to speak more strictly, with none, beyond that produced by ordinary catheterism. The importance of an early application of this method, is well established by the results of our practice in France. In 1824, only one-third of the sufferers who sought for relief by the new method, were considered in a fit state for its application. Progressively, their number augmented to one-half and two-thirds. During the last year, M. Civiale had occasion to perform the cutting operation in only two instances, out of upwards of thirty cases, and he lately observes, in his correspondence with me, that he has not had any of those formidable cases so frequent in the commencement of his practice. Lithotrity in France, has thinned the numbers of calculous patients, and those who in their turn have the misfortune to be afflicted with stone, now begin to apply in time. The establishment of a lithotritic ward in the Hôpital-Necker, under the care of my friend M. Civiale, will contribute mainly to the advancement of an æra in surgery, when cutting for stone will be a rare event indeed. Though unsupported by the great dexterity and surgical tact of the inventor of this operation, yet I am fain to hope, that its progress in this country will be equally prosperous.—Indeed, such must be the desire of every friend to suffering humanity."

Mr. Costello then pays a very handsome, and we have no doubt, a well-deserved compliment to Sir Astley Cooper, for the zeal he has evinced in making this method more extensively known, and in patronizing it with all the influence of his high name.

Mr. Costello ushers in the narrative of the cases contained in the second class, by appropriate reflections. He candidly admits that their treatment is more tedious, painful and difficult, than that of the cases in the preceding series; but he adds, that even in these cases, the success of the new method is equally certain, and free from danger. In one of these cases, the forceps of Sir A. Cooper had been employed, but without success, the calculi being too large for extraction by this instrument.—The patient was cured in three sittings, the last of which took place in Sir A. Cooper's drawing-room. After the operation he walked down stairs, in company with the medical men who had been present on this occasion; and Sir Astley Cooper seeing him smiling, observed—"Really, gentlemen, it is extraordinary, after an operation for stone, to see the patient walk down stairs with us, and laugh at it, as if it were the very reverse of serious;" and he added,—"This is indeed the most splendid discovery of modern times." The coincidence is curious enough, that this patient's name should be *Stone,* and his place of residence *Folkestone.* In another case in this class, the forceps had also been used without success. The patient in this case is Admiral Poulden, of Filton, near Bristol, who was relieved in four sittings.

The third series embraces cases in which the obstacles to the success of lithotrity are serious indeed. We the more readily pay attention to Mr. Costello's opinions on this point, as they seem to be exposed with no other view than for the benefit of science. If he had brought forward a pretension that no difficulty was opposed to the application of lithotrity, and that his success was certain in all cases, we should have distrusted his statements altogether. Science is best served by candour, and in this respect we have no room to find fault. He thus prefaces the detail of the cases contained under this class, "hitherto, we only considered those cases in which the success of lithotrity is certain; but, unfortunately, our task is not always so pleasant. Cases too frequently occur which require the greatest care and caution in its application, and in which nevertheless, the result is doubtful. In this class the case of Mr. Hall, of Dartford, will be read with great interest. This gentleman was operated on in France. Mr. Costello terminates this case by saying, Mr. Hall has shewn his gratitude to lithotrity, and at the same time evinced the high opinion he entertains of it as a curative method, by addressing to me since my return to England, two other gentlemen, labouring under the same disease. They are not only cured, but are here present at the Meeting of the Royal Society, one of these gentlemen who had been more than ordinarily affected by the danger of his situation, and took the trouble of going to Dartford to see Mr. Hall, was reassured by him in the following words: "There is nothing terrible in this operation; be of good cheer, your life is in your own hands." The case of Mr. Kearn, parish priest of Rathfarnham, near Dublin, aged 74, is also a very interesting one. That of Hannah Stewardson, operated on at St. Bartholemew's hospital, was one of great difficulty, and is mentioned as the first instance in which this operation was performed in any public hospital in England; but the case of Mr. W. Bowdery, bookseller in Oxford-street, exhibits the triumph of lithotrity in the most marked manner of any in the series. This patient had several calculi, together with an adventitious growth within the bladder. He had laboured under his complaint for *six or seven* years. Mr. Costello triumphed over the numerous difficulties of this case in a manner highly creditable to his skill and patience, as well as to the method which he is so laudably engaged in propagating. He terminates his account of it, in the following words: "Mr. Bowdery's case presented a very serious, and happily a rare complication, the treatment was long. It is true, it might have been considerably abridged; but the patient lived near me, in town, and in his interest as well as in that of lithotrity in England, I felt bound not to be precipitate, lest, I should have exposed myself, or the method, to a chance of failure." There is another case to which we deem it proper to advert, though in as few words as possible; it is that of Mr. J. V. Batley, a young painter of great promise: this gentleman had laboured under this complaint for ten years, the calculus had attained the size of a hen-egg, (the largest which Mr. Costello's instruments can grasp,) and he was wasted to a skeleton; notwithstanding these unfavourable circumstances, Mr. Costello effected his cure.

Levi and Sarah, or the Jewish Lovers, a Polish Tale. By Julius Ursinus Niemcewicz. Translated from the German Edition, with a Preface and Notes by the Editor.—London, Murray.

Julius Ursinus Niemcewicz is a man distinguished in Poland for his virtue, patriotism and talents. It was by his co-operation with king Stanislaus, and the more respectable part of the Polish Diet, that the constitution which was secretly prepared and suddenly adopted in May 1791, was originally framed. This constitution received the warm and concurrent approbation of Burke and Fox, at a time when these great statesmen scarcely agreed on any other subject,